



Archnet-IJAR: International Journal of Architectural Research
www.archnet-ijar.net/ -- <https://archnet.org/collections/34>

THE SPATIALITY OF SEGREGATION: NARRATIVES FROM THE EVERYDAY URBAN ENVIRONMENT OF GOTHENBURG AND GLASGOW

DOI: <http://dx.doi.org/10.26687/archnet-ijar.v12i1.1502>

Nada Shehab*, Ashraf M. Salama

Keywords

displacement; mobility; social dysfunction; urban response; migration; spatial segregation; inclusion; urban environments.

ArchNet-IJAR is indexed and listed in several databases, including:

- Avery Index to Architectural Periodicals
- EBSCO-Current Abstracts-Art and Architecture
- CNKI: China National Knowledge Infrastructure
- DOAJ: Directory of Open Access Journals
- Pro-Quest
- Scopus-Elsevier
- Web of Science

Abstract

Recent figures of displaced people in the world have reached more than 60 million suggesting that there has been an exponential increase in the rate of forced and voluntary mobility between cities. This has inevitably caused socially and politically constructed 'borders' to change. This paper examines the different levels of manifestation of migration using two case studies from Scotland and Sweden, to demonstrate different mobility patterns, serving to provide a wider comparison of urban responses to the different magnitudes of influx of migrants and their highly diverse distributions. Within the context of the two cases the paper examines socio-spatial practices of migrant communities and assesses the impact of displaced populations on the urban areas they occupy and vice versa. It also highlights the role of urban practitioners in questioning durable solutions that address the challenges introduced by spatial segregation on infrastructure and local communities. Key contribution of this study aims to shift stereotypical architectural conception towards more resolved contextual solutions that address current socio-cultural needs in urban areas that host displaced communities. Coupled with a greater understanding of the historical trends and future challenges of mass migration, this could be developed into a methodology for further research into proposing socially sustainable solutions that deal with the complex nature of displacement and its socio-spatial impact on urban environments.

Nada Shehab*, Ashraf M. Salama

N. Shehab*, MArch AAD, Department of Architecture, University of Strathclyde,
75 Montrose Street, Glasgow G1 1XJ United Kingdom

A. M. Salama, Professor and Head of Department of Architecture, University of Strathclyde,
75 Montrose Street, Glasgow G1 1XJ United Kingdom

*Corresponding Author's email address: fsb12192@uni.strath.ac.uk

INTRODUCTION

Migration is defined as a “one-off movement leading to permanent resettlement” (Penninx et al, 2008:3). However, more recently, the act of migration has shifted towards more fluid practices whereby more migrants have consecutive stays in various cities and alternate their residence between countries over time. This has ultimately led to new practices of community formation and integration. Studies have shown that segregation and the spatial concentration of minorities in suburbs and neighbourhoods have created social rifts in urban communities eventually resulting in “entrenched ethnic ghettos that reflect and reproduce deep social inequalities” (Iceland, 2014:2).

In the context of discussing migrant communities, architecture and the built environment become intrinsically associated with socio-spatial and socio-cultural sustainability as the cultural identity of a migrant is challenged through the process of migration. This becomes more important as rates of migration increase and order shifts towards more displaced communities requiring resolved urban solutions. Since 2001, “questions relating to ethnic clustering and socio-spatial segregation have moved to the forefront of media and political discussions” (McGarrigle, 2010:17).

This paper focuses its study areas on two European countries - Scotland and Sweden. These study areas will provide a wider perspective to underline the issue of segregation and ethnic concentration at different scales as well as initially assess the degree and drivers of clustering as a direct result of migration and/or immigration. The two geographical studies will provide different research data as they each feature varied scales, determinants and impacts of migration. Sweden features much higher levels of influx of migrants than Scotland due to the different migration policies. This provides a different dimension to the research on the socio-spatial impacts of migrant communities on the built environment.

The studies aim to acquire further understanding of the role that architectural scholarship can play in answering some of these questions and tackling societal and spatial challenges within the migrant context of Gothenburg and Glasgow. It is important to note that architectural principles have never been formed in a social, political or religious void and thus can be instrumental in informing integration and resettlement of displaced migrants and encouraging socio-cultural sustainability within urban communities (Youssef, 2013). By drawing on the two cases, this paper aims to advance the debates on the intersections between past and present migration patterns and the processes of urban fragmentation that materialise as a result of different levels of migration in European cities.

APPROACH TO INVESTIGATION

A multi-layered and multi-scalar investigation mechanism is employed in order to understand migrant behaviour and its relationship with the built environment (Figure 1). A conceptual outline of migration, urbanisation and spatial segregation on a global scale is developed. This is followed by an examination of relevant issues at the regional and neighbourhood scale in the context of Gothenburg by referring to and comparing its demographic census data, as well as examining characteristics of the urban environment that feature high levels of migrant concentration. These procedures act as a prelude to the in depth case study in the context of Glasgow which places emphasis on Pollokshields area at neighbourhood scale as an urban setting featuring high rates of ethnic concentration and migrant interaction. A thorough analysis is undertaken in one important street, Albert Drive within Pollokshields on a street

scale that involves conducting behavioural mapping, recording movement patterns, and walking tour assessment procedures. Findings of this investigation will be interpreted using census data, earlier community-wide interventions and interviews with community members.

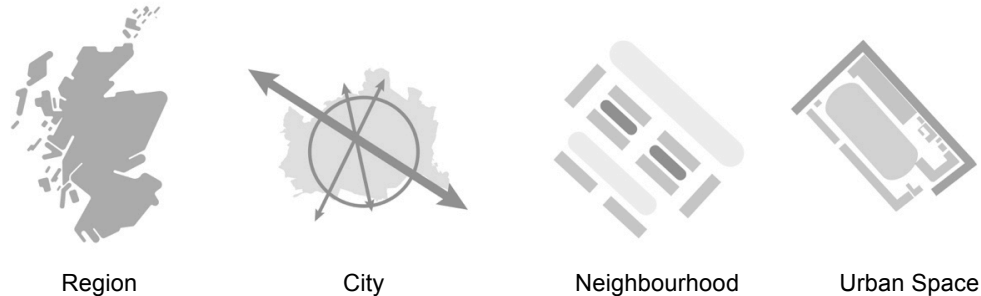


Figure 1. Scales employed in the study (Source: Authors).

SPATIAL SEGREGATION AND URBAN FORM

For most European countries, mass migration is a more recent phenomenon than for countries like the United States or Australia. For instance, the percentage of foreign-born people within the overall population of countries such as Germany and Spain has risen from less than 1% in 1960 and 1990 to 14.5% and 13% in 2012 respectively (Dustmann et al., 2012). The United Kingdom and Sweden are also both European countries that have seen a rise in migrant population with the percentage of foreign-born individuals rising from 7.1% to 13.2% and 10.7% to 16.8% between 1996 and 2015 (World Statistics Pocketbook, 2016).

These figures have contributed to changing demographics, of which a major component is a large-scale increase in ethnic diversity, ultimately characterising certain aspects of societies and cities. In an ideal world, cities would strive towards social integration and inclusion of all ethnic groups into its wider society, however, by examining residential and urban patterns at different scales, it could be concluded that this ideal is not reflected (French, 2008). One explanatory factor that has been hypothesised as one of the main underlying causes of this is ethnic group differences. This “asserts that ethnic residential segregation exists because people choose to live near others with the same ethnic background” (French, 2008:2). It is also argued that areas where ethnic minorities assimilate feature spatial properties that may discourage them to move elsewhere.

Socio-Spatial Segregation is defined as the “residential separation of groups within the broader population, whereby some areas show an over- representation and other areas an under- representation of members of a group” (Johnson et al., 1981:24). There are good and bad types of segregation (Peach, 1996). Essentially, the two types of spatial segregation are characterised by whether the members choose to live in said segregated space thus called an ethnic enclave, or if not and their spatial and social movement is constrained, thus called an ethnic ghetto. These both have positive and negative connotations attached that could be related to social characteristics.

“Segregated areas feature a spatial mismatch in which job opportunities are not located near ethnically segregated areas” (Kain, 1968:175). This means that individuals living in an area of segregation are exposed to lower economic opportunity including “disparities in income, educational attainment levels, etc.” (French, 2008:37). Inevitably this has a negative effect on

social and spatial structure. However, the spatial dimension of social segregation has not been consistently studied in relation to urban planning. This can be attributed to the fact that it is difficult to capture the physical dimension of socio-spatial segregation and narrow down the influence of the built environment as urban form within a city is a constantly changing entity that inevitably influences socio-spatial relationships.

Theories on segregation within cities draw from a number of fields and disciplines. Nevertheless, the physical environment needs to be seen as a structural layer that informs the manifestation of ethnic clustering in an urban context. The 'city' must be equally regarded as a physical and a social entity. As Lefebvre (1991) puts it, 'gin and tonic' – meaning that one quantity is not given by the other but rather that they are mutually dependent. This is highly relevant as urban form and the built environment are treated with little importance in segregation research.

The preceding discussion suggests that the investigation of whether spatial properties of ethnically concentrated areas could reproduce segregation is important. This is especially critical, according to Legeby (2010), when master planning and urban design are seldom integrated into anti-segregation initiatives. In essence, the reciprocal relationship between spatial segregation and urban form needs to be captured systematically. In turn, this postulates that research on urban segregation should start with a deeper understanding of space as 'lived space' and thereby contributing insights into the physical environment on an experiential level rather than merely on a conceptual one.

THE CASE OF GOTHENBURG, SWEDEN

Sweden has seen an unprecedented increase in the influx of migrants over the last few decades. During the 50s and 60s, Sweden experienced a huge rise in labour immigration from Scandinavia, Italy, Greece, Yugoslavia, and Turkey ultimately leading to the need for regulated immigration and the formation of the Swedish Immigration Board in 1969. The 80s was the decade of the asylum seekers where a large number of migrants from Iran, Iraq, Lebanon, Syria, Somalia and Eritrea entered Sweden. The percentage of foreign-born individuals in Sweden has risen from 7.5% of the total population in 1980 to 18.6% in 2009 and accounts for 20% of the population today (Andersson et al., 2010). "A major survey reveals increased levels of segregation between native Swedes and second-generation immigrants in the past two decades" (Lauener, 2015:1). In 2011, a study was conducted, at Gothenburg University by the Department of Human and Economic Geography, which used data covering the total adult population of the city to investigate whether ethnic congregation has driven Swedish urban residential segregation. The results of the study strongly suggest that "Swedish self-segregation is a considerable factor driving the ethnic residential segregation of the city" (Igerud, 2011:2).

A recurring theme in research on contemporary urban Swedish segregation is the severe evidence of ethnic hierarchy in neighbourhoods. Swedish immigrant policies have been put in place to tackle immigrant assimilation in specific urban areas and promote re-integration. These policies aimed to work towards counteracting settlement patterns of immigrants that resulted in 'immigrant enclaves' which fostered increased polarisation and deep social exclusions in the three main metropolitan areas of Stockholm, Malmö and Gothenburg. Housing policy in Sweden allocated publicly owned houses in specific 'problem areas' in accordance with wealth and status. Therefore, these types of dwellings were mostly allocated to newcomers including migrants and labour immigrants who often lacked roots in

the particular urban site in question (Irene et al., 2003). This resulted in these types of areas generating lower demand and therefore becoming stigmatised and more available to groups relying on social assistance, of which a majority could be alcoholics, drug abusers, etc., and thus, transforming the immigrant enclave into a ghetto. Such ethnic hierarchy is an indirect result of a set of complex processes and policies that act towards unconscious social exclusion of particular ethnic groups in Swedish society.

The spatial plan of the city of Gothenburg in Sweden has promoted the spatial segmentation of immigrant communities in its residential neighbourhoods. In Gothenburg, the term 'residential suburb' is associated with issues of segregation. Economic rationale has been the primary driver for urban planning and design guidelines in the city thus creating vulnerable districts that have promoted social and spatial seclusion. These types of areas normally feature a high concentration of immigrant communities and are often labelled as problem areas. One of these districts is Hammerkullen for which the spatial environment is explored from the perspective of the relationship between segregation of migrant communities and urban form.

Hammerkullen is an area in the North Eastern region of Gothenburg renowned for its shattered urban form and its entrenched ethnic ghettos. It is a public housing "Million Programme" suburb and is ranked as a low status neighbourhood. The Million Programme is a Swedish housing program implemented in 1964 (Hall et. al, 2006). Through the program, reasonably priced housing in the form of high-rise blocks were introduced to tackle the severe housing shortage for the growing Swedish population. Over 10 years, the Million Programme built 1.006 million dwellings across Sweden thus giving rise to 'Concrete suburbs', one of which is Hammerkullen. The land where Hammerkullen is situated is relatively hilly in nature and was thus costly to build in. Consequently, urban planning initiatives in the area were driven by cost where cheap high-rise apartments were built with little attention paid to public space. The entire district is separated from its neighbouring districts by forests and is made up of segmented mono-functional fragmented neighbourhoods.



Figure 2. Hammerkullen Location within Gothenburg (Source: Authors).

Around 8000 people live in Hammerkullen of which 57% are foreign born (Eugugle, 2013). The area is most well known in the media for its relatively high rates of segregation, exclusion, unemployment and crime. Separated grey and white high-rise residential blocks dominate the urban scene and feature a fragmented central square, and a number of inactive spaces and hidden corners that inevitably attract crime and gang gathering. These high-rise

residential blocks were arranged seemingly randomly around a central public square with no active frontages. The definition of and accessibility to the square in relation to urban form can be described as not complementary but rather optimised configurationally from a land use point of view.



Figure 3. Hammerkullen Million Programme Suburb (Source: Putri, 2012).



Figure 4. Hammerkullen Square (Source: Putri, 2012).

Figure 5 illustrates that the urban layout of buildings and open spaces is highly fragmented. Entrances to the residential buildings are not directed towards spaces with high activity but rather to pedestrian pathways, therefore contributing to a less defined urban space and inactive frontages. These characteristics have been found to have a strong impact on engagement and social interaction (Legeby, 2010). The random spatial arrangement of residential blocks has contributed towards generating significantly unsuccessful surrounding public space. This is important as public space provides a platform for social cohesion and can introduce major advantages to diverse neighbourhoods. The large high-rise blocks seem to act as barriers to social integration and make the transition between private and public abrupt and unnatural. Every residential block sits adjacent to a green open space as part of the standard design for a Swedish suburb. However, as these blocks are sparsely arranged, the surrounding green areas that lack urban furniture have become desolate. Successful neighbourhoods should integrate primary public places that seamlessly intertwine with form and function. It is clear from this brief analysis that the quality and distribution of inclusive public space within neighbourhoods should be a major concern when curating urban solutions that promote integration.

In Hammerkullen, where high levels of migrant segregation occur, the distribution of the urban space within the neighbourhood inhibits integration. Primarily, isolation has been built into the layout. However, the spatial dimension of the exclusion of migrant communities is only one of the contributing factors to the issue of segregation. Residential and urban space segregation is a rising issue in the metropolitan areas of Sweden. Strikingly, urban design has not been placed at the forefront of anti-segregation initiatives. Since it has been somewhat overlooked in this field, an important thrust in this study is that urban design is an underrated parameter that must be further explored in the context of understanding segregation.



Figure 5. Hammerkullen Neighbourhood Figure-ground (Source: Authors).

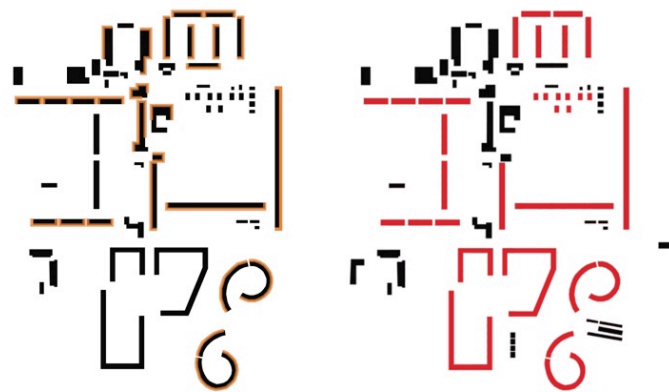


Figure 6. Hammerkullen Neighbourhood Spatial Activity (Source: Authors).

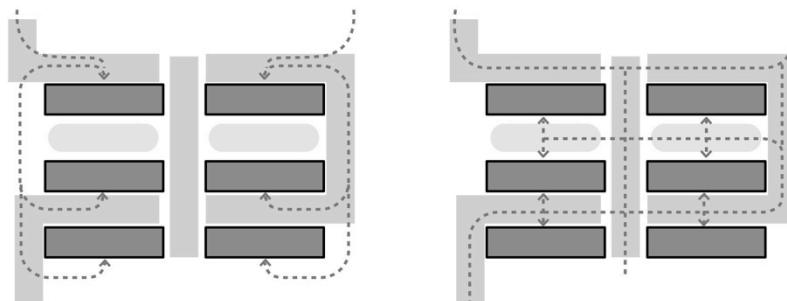


Figure 7. Residential building frontages can be seen to promote or inhibit interaction (Source: Authors).

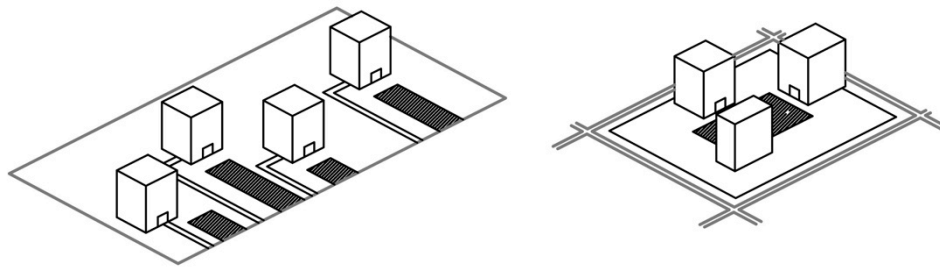


Figure 8. Framing public space as opposed to creating dead space as a tool to promote integration (Source: Authors).

THE CASE OF GLASGOW, SCOTLAND

Scotland has long been a country of significant migrant diversity among other UK countries. Population movement has been a feature of Scottish heritage for centuries and today many Scots can trace their roots to other places (Edward, 1993). One of the largest groups of migrants entering and settling in Scotland is the Irish. Beginning in the 1800s, Irish migrants travelled and temporarily settled in Scotland during peak times of the farming harvest calendar. Migrants' settlement in Scotland became more distinct, however, with the introduction of the weaving and railway construction industries. More specifically, in 1846, the great famine pushed larger numbers of Irish migrants to enter the UK and settle. Other migrant groups, mainly South Asians, began to settle in Scotland during the 1960s. As a result, small ethnic communities began to form including the Polish, Italians, Chinese, Irish as well as the South Asians. Throughout the 21st century, the non-UK born population of Scotland has increased by 84% with Glasgow City hosting the largest number of migrants and immigrants in the whole of Scotland ultimately making it one of the most ethnically diverse cities in the UK (Vargas-Silva, 2013).

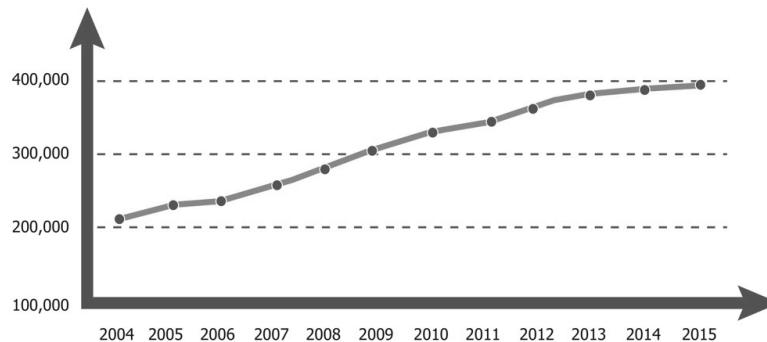
"Glasgow is a multicultural city: a home to many cultures" (Edward, 1993:11). For more than two hundred years, Glasgow's population has consisted of individuals and communities from other parts of Britain and other countries. After the Union in 1707, the city of Glasgow began to flourish as a centre for commerce and trade, resulting in its growth from a humble 12,000-inhabitant town into a rising prosperous city. One hundred years later, the population had risen to 77,000 and by 1901 it reached 750,000. The history of Glasgow has reflected these movements and growth in figures. While there is substantial diverse groups in terms of population size, the settlement patterns of South Asians migrants in Glasgow is highlighted as the focus of investigation.

The Glasgow Asians: A Segregation Account

Some of the most recent minority ethnic groups to migrate to Glasgow in large numbers are Pakistanis, Indians and Bangladeshis – collectively termed South Asians. The ties between the UK and India go back as far as 1857 when many Indians from the Punjab region served in the British army (Edward, 1993). Post-war migration from India continued as the UK required labourers in the textile, manufacturing and service industries. Following this, in 1962 when the first Immigration Act was passed, the free movement of workers became restricted and less people were allowed to enter Britain. Hence, most South Asian workers decided to settle and from then on most of the new arrivals from South Asia were the relatives or dependents of those already settled. Despite this, in Glasgow, the Asian community continued to grow as they migrated within the UK and eventually became concentrated in the Pollokshields, Gorbals and Govanhill areas.

The largest numbers of South Asians settled in Glasgow come from what is now Pakistan. The 2011

UK Census recorded 8.05% of the total population being Asian, rising from 4.4% in 2001 and 2% in 1991, with 1.46% of Indian ethnicity, 3.78% of Pakistani ethnicity and the remaining 0.08% of Bangladeshi origin. These figures do not include other Asian groups and those of mixed ethnicity that account for 2.73% (UK Census, 2011).



Between 2004 and 2015, the non-UK born population in Scotland increased from 204,000 to 393,000.

Figure 9-a. Foreign-Born Population of Scotland (Source: Authors / UK Census).

In 1971, a survey was carried out in Glasgow and found that the 12,000 Asians living in the city chose to live near each other and preferred to own their homes rather than rent them (Edward, 1993). In this respect, it can be argued that there may be an element of segregation brought about by ethnic affiliation and preferences. Figure 9 illustrates the evolving spatial concentration and self-segregation patterns of the Asian community in Glasgow since the early years of their migration. Largely, the South Asian group has relatively high levels of residential segregation compared to the majority white groups. The core settlement areas in Glasgow where most South Asian groups have tended to settle are: Pollokshields, Woodlands and Garnethill (McGarrigle, 2010). This has generated a significant degree of separation between ethnic communities whereby 67.2% of the Pakistani Muslim community are concentrated South of the river.

Resultant spatial change in the area reinforced residential differentiation and social segregation between communities (Pacione, 2005). The area of Pollokshields was further developed in the 20th Century to accommodate its growing population. It is currently one of the busier areas of inner city Glasgow. Albert Drive, the main road that runs through the heart of East Pollokshields bound by the dividing Shields Road, is a busy mixed-use street and is considered the most ethnically and socially diverse in Scotland and the retail centre of Scotland's Asian community (Hopkins, 2002). The drive runs through the East and West sides of Pollokshields. It is not only ethnically diverse; it also represents varied levels of social class and hence different kinds of architecture that represent these. Further West of the Shields Road boundary, the Victorian flat tenements morph into Victorian Villas and mansions with private gardens. The street has clearly been designed to accommodate different class structures of society and when walking to the top of the drive, it becomes increasingly apparent that there is an invisible barrier between the West and the East. Albert Drive is considered to be an urban space of high activity in the heart of the community and deserves attention by systematic investigation. A well-designed urban open space is designated as one that is considered a community asset and that encourages social interaction and outdoor activity as well as contributes positively to the social harmony of the community (Chen et al., 2016).

"There are still two parts of Albert Drive. The upper half of Albert Drive hasn't changed much while the East has changed massively. Technically we live at the top end but I send my son to the local school, which is very multi-cultural. Most of the other people at my end wouldn't do that – they would go private" (Ramaswamy, 2013:1).

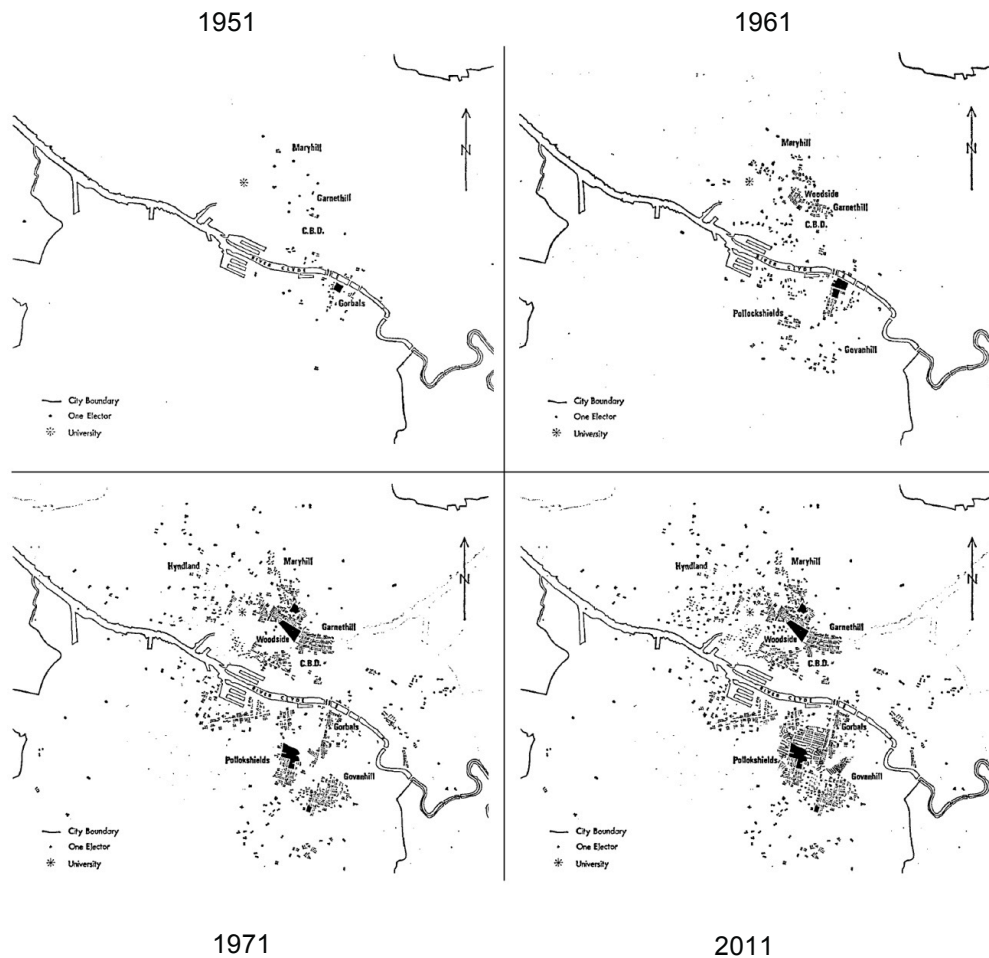


Figure 9-b. Concentration of South Asians in Glasgow over time – Concentrated in Pollokshields (Source: Kearsley et. al., 1974).



Figure 10. Albert Drive in Pollokshields (Source: Authors).

Three types of data collection procedures were implemented. First, 'Behavioural Mapping' is used to describe and illustrate the occupancy levels, movement patterns, and activities of users and visitors of the space by recording their periodic behaviour (Salama et al., 2013; Al Maimani et al., 2014; Salama et al., 2017). This enables an understanding of the dynamics of the ethnic clusters as it relates to the urban environment. Secondly, a 'Walking Tour Assessment' is conducted such that a number of relevant functional, social and perceptual attributes of the space are scored based on a series of designed questions (Salama, 2015). This facilitates the generation of informed conclusions on whether the urban space is designed to foster inclusion of diverse members of the Pollokshields community. Lastly, reference is made to previous interviews of members of the community whereby questions were asked for the purpose of examining the levels of ethnic segregation in the area and on the Drive.

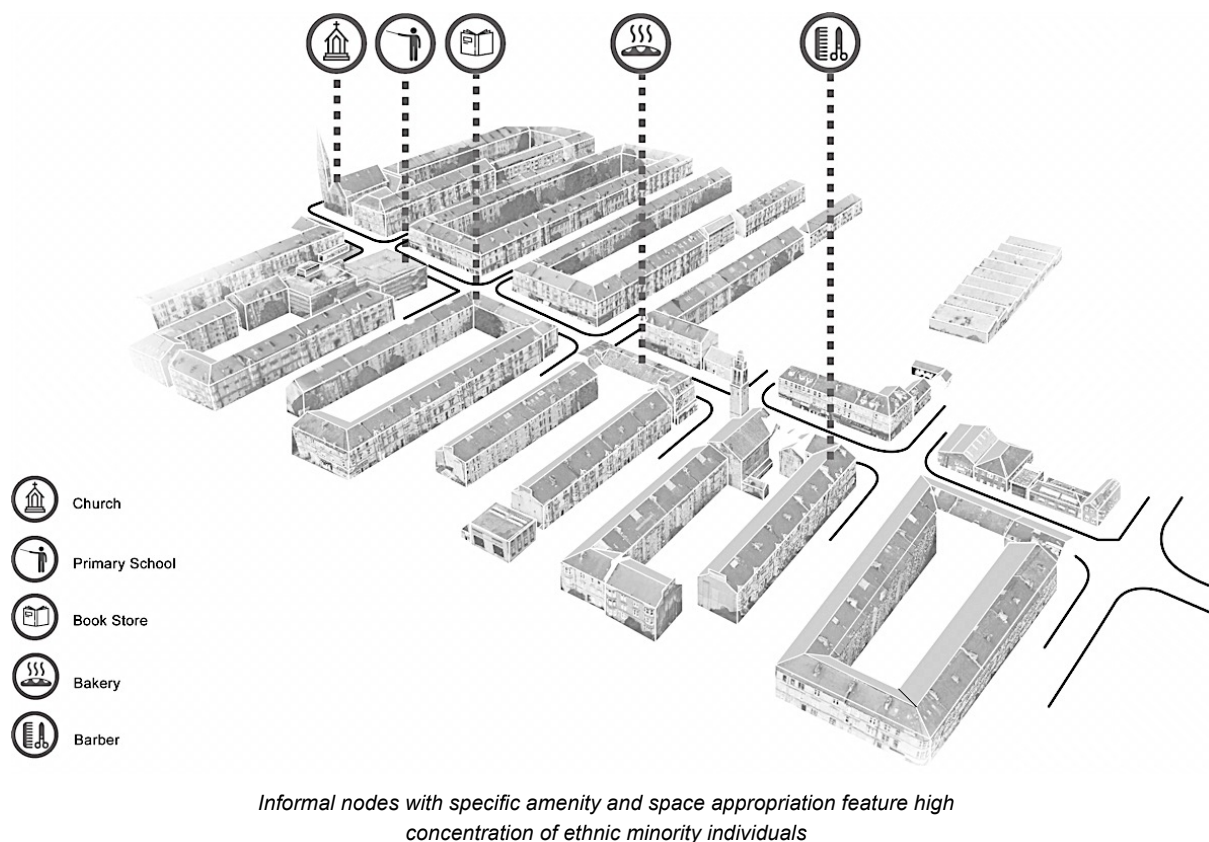


Figure 11. Nodes on Albert Drive (Source: Authors).

Figure 11 depicts functions and space appropriation along the drive. The East side of the drive is home to Tramway, Pollokshields East Railway Station and Scotland's first Sikh temple. The majority of the drive features Victorian tenement buildings with mostly Asian clothes shops, convenient stores and jewellery traders at the ground floor and flats above.

A series of visits to the drive were carried out during the morning, afternoon and evening on different weekdays and weekends. Observation took place between 9 and 10:30am on weekday mornings and between 10 and 11:30am on weekend mornings. On weekday and weekend afternoons, mapping was carried out between 1pm and 3pm. For weekday and weekend evenings, observation times were between 6:30 and 8:00pm. Users were also classified into four groups: Ethnic minority adult, ethnic minority child, non-ethnic minority adult and non ethnic-minority child.

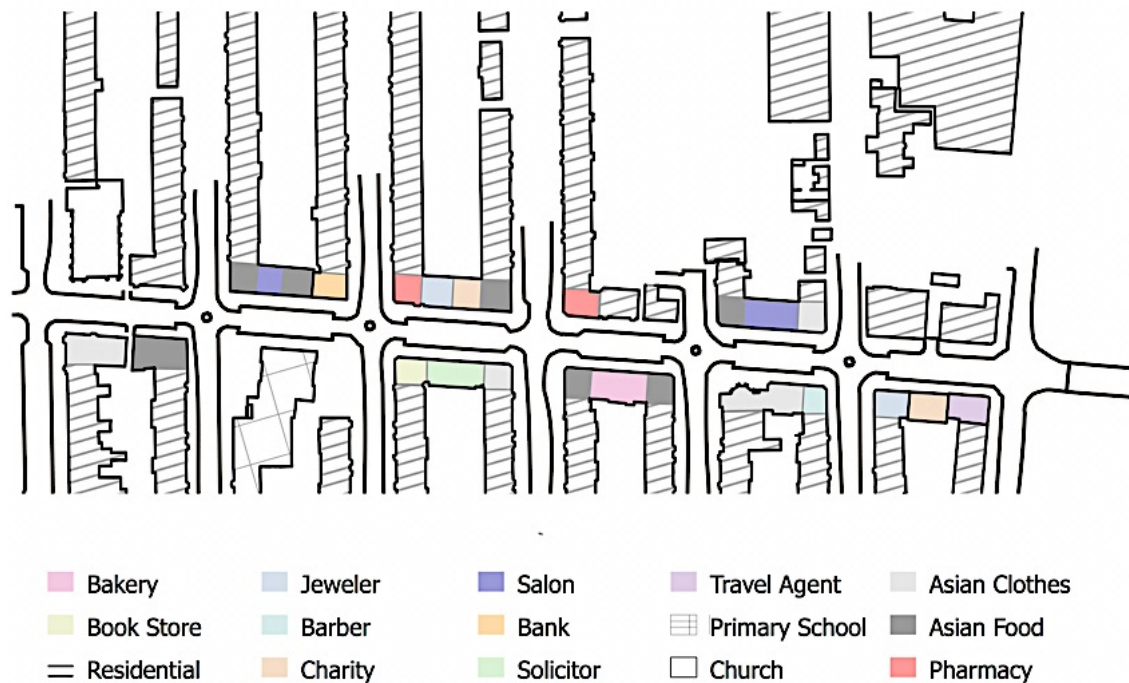


Figure 12. Space appropriation along Albert Drive (Source: Authors).

Maps were generated for all observation periods to generate a clearer profile of concentrated activity along the drive (Figure 13). Users represent different ethnic backgrounds with a substantial presence of minority ethnicities. Most non-ethnic minority users are passers-by while most ethnic minority users are active participants within the community. Minority ethnic individuals are seen to move from shop to shop and socialize with owners. It was also observed that they wave to each other and engage in polite exchanges as they pass by. In contrast, non-minority ethnic individuals rarely enter shops on the drive and do not socialize with other ethnicities.

The drive is more crowded during the weekends and during the afternoons on weekdays. Many ethnic minority individuals were seen to walk and/or gather in groups; particularly school children in the afternoons. The barbershop on the drive appears to be a node in which many male minority ethnic adults gather and chat. They seem to enjoy their time in the space although it lacks urban furniture and space to rest. This may be one reason why no one was observed to stay in a specific part of the drive for long periods of time. Overall, it is clear that there is a high level of social interaction between minority ethnic individuals inside and in front of shops along the drive. Non-minority ethnic individuals are observed to have completely different interactions along the drive. Occasionally they briefly enter shops and do not interact with others or are seen to only pass by.

A number of socio-spatial properties of Albert Drive can be experienced. People of different ethnicities were observed to use the space for very different purposes with a significant number of users being of a minority ethnic background. Movement patterns are very much influenced by the amenities and design qualities that characterise the space. The study reveals that the users' experience vary in accordance with the purpose for which they visit the space. Their level of interaction with the space and with each other is therefore dictated by their needs. As Albert Drive clearly only caters to specific ethnic groups, this means that there is little opportunity for interaction and integration. The absence of adequate urban furniture and clear gathering nodes has contributed to the ineffective usability and inefficient appropriation of the drive as an urban space.

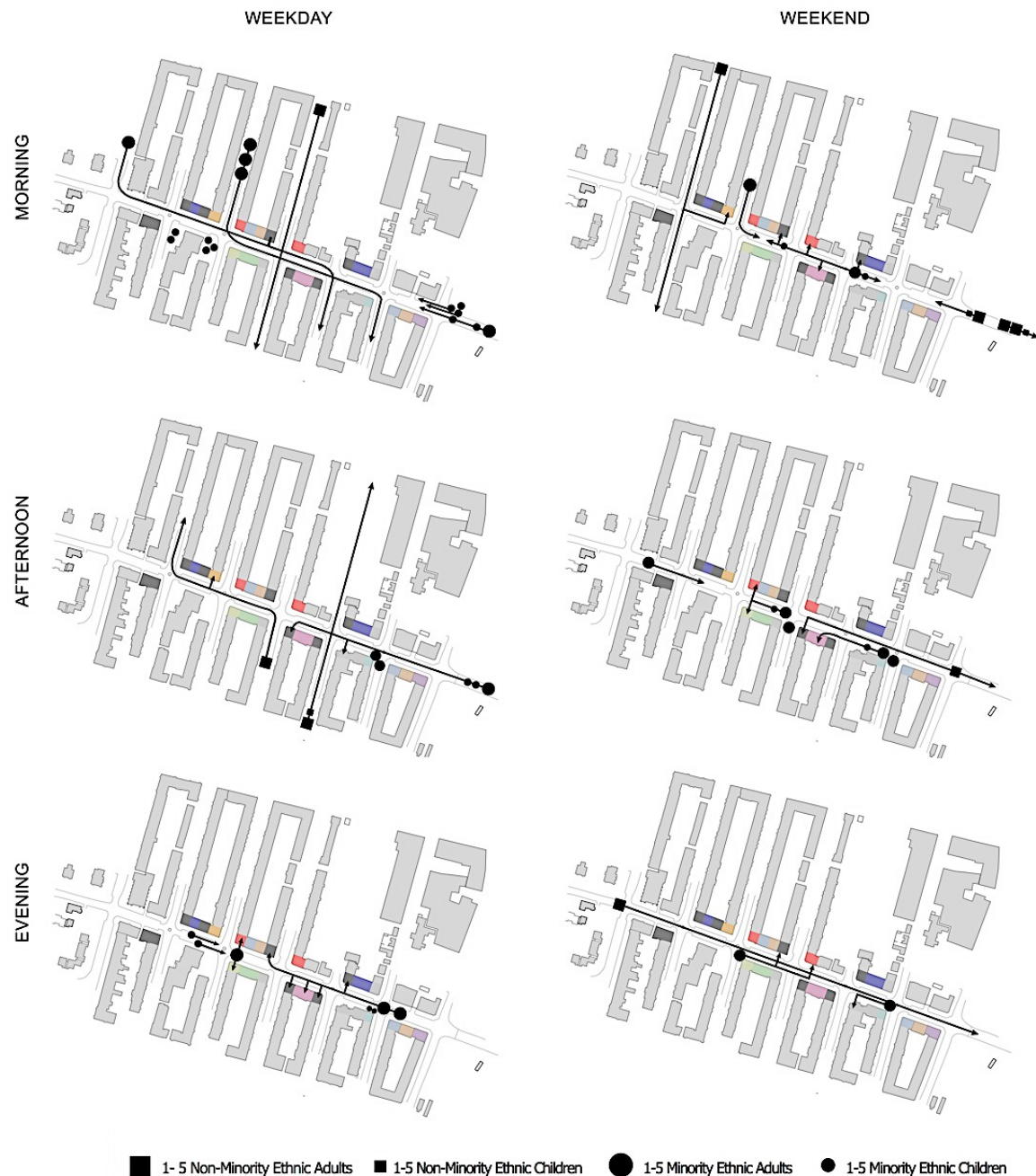


Figure 13. Albert Drive behavioural maps (Source: Authors).

Two preliminary visits to Pollokshields were carried out prior to conducting systematic observation. This was initially important in identifying a general profile of Albert Drive. On approach from the station, the drive immediately strikes as being very diverse in terms of amenity. It is lined with ethnic shops, takeaways, travel agents and groceries. One could also quickly establish that the majority of users in the space are of different ethnic backgrounds by observing their characteristics, language and more importantly their behaviour. *"The wind dances around the legs of the women doing their daily shop, making their hijabs, abayas, chunnis, and saris billow like sails. Children whiz past on scooters. Old men in sandals chat on street corners with their hands clasped behind their backs. Shop owners stand on their thresholds, surveying the scene, watching the world go by"* (Ramaswamy, 2013:1).



A - Young minority ethnic individuals are observed clustering around the primary school in the afternoons of weekdays. Non-minority ethnic children are observed passing by without pause.
B- Male minority ethnic adults are observed clustering and concentrating around the barbershop on the drive. Spatially, the space is at a corner and features wider surface area for congregation.

Figure 14. Informal gathering nodes on Albert Drive (Source: Authors).



A- Male minority ethnic adults gather on the drive
B- Space appropriation along the drive features concentrated minority ethnic amenity

Figure 15. Albert Drive Observations (Source: Albertdrive.com / Authors).

In order to efficiently examine the attributes of Albert Drive, a simple yet effective walking tour assessment tool was designed to better understand the drive as an urban space. The tool is designed in the form of a checklist of questions whereby the researcher performs a structured walking tour through the space and assigns a score to each question between 1 and 4, where 1 represents the question or statement being highly inappropriate and 4 represents it as being highly appropriate (Salama et.al, 2013, 2015). The examination of the drive was conducted following three categories of attributes Functional, Social and Perceptual that received average scores of 1.85, 2.05 and 1.9

respectively (see Figure 16). In general terms, this demonstrates that the overall the drive as a physical space does not serve as efficiently as it could to promote varied use and increased community integration.

On a physical functional level, the drive, while easy to navigate, does not directly promote a variety of experiences for the user. Although users pass by, and gather around key areas of the drive, there are no defined gathering nodes or landscape furniture. It is, however, relatively easy to navigate the space as it takes on a linear form and is dominated by shops. Social attributes, on the other hand, received an average score of 2.05 suggesting that the spatial arrangement of the drive does not highly promote social interaction of its users. There is some degree of socialization between shop owners and frequent visitors, however there is not much room for social interaction of the general population. Urban furniture and soft landscaping are very minimal. Furthermore, the amenities along the drive are set out in a way that seemingly promotes interaction only between minority ethnic individuals.

		ALBERT DRIVE ATTRIBUTES	SCORE
		HIGHLY APPROPRIATE 4 3 2 1 HIGHLY INAPPROPRIATE	
FUNCTIONAL		To what degree does the drive feature an architectural character reflective of its uses ?	1.0
		To what degree does the drive include defined gathering spaces ?	1.75
		To what degree does the drive incorporate multiple uses ?	2.5
		To what degree is it easy for a visitor to navigate the drive ?	3.5
		To what degree does the drive provide services to different ethnicities ?	0.5
SOCIAL		To what degree does the physical design of the drive provide space for social interaction ?	1.0
		To what degree could the drive be described as an attraction to various cultural groups ?	2.0
		To what degree do the signs and posters on the drive consider minority ethnic groups ?	4.0
		To what degree does the drive support the social inclusion and interaction of users ?	0.75
		To what degree does the character of the drive reflect the identity of Glasgow ?	2.5
PERCEPTUAL		To what degree does the drive offer a sense of safety and security to its users ?	1.0
		To what degree does the drive encourage interaction of different age groups ?	2.5
		To what degree does the drive encourage interaction of different ethnic groups ?	2.0
		To what degree is the architecture along the drive attached to its history ?	3.0
		To what degree do the signs and posters on the drive consider non-minority ethnic groups ?	1.0

Figure 16. Walking tour assessment checklist (Source: Authors).

The examination of perceptual characteristics revealed that the drive is pedestrian friendly although not entirely safe as it features numerous crossing points. In addition, the ethnic food shops, clothes shops and travel agents do not cater to non-minority ethnicities. A few signs and leaflets hanging in shop fronts of the drive are written in several languages excluding English. Visually, the space may be appealing as it maintains the architectural style of the local area. The church at the top of the drive provides a visible historical landmark to the space and the architecture of the drive remains appropriate to the overall context. The style however is not reflective of the high ethnic amenity provided. This creates a clear juxtaposition between how the space may be initially perceived and what the actual experience of the user will be.



*A Minority ethnic individuals stand around shop fronts
B Family congregates at shop entrance
C Meeting point on Albert Drive
D Traditional minority ethnic individuals cross paths on the drive*

Figure 17. Users' Engagement with Albert Drive (Source: Albertdrive.com / Authors).

The preceding analysis provides a third dimension toward understanding the spatiality of segregation. Through systematic observations, it is found that user behaviour along the drive is heavily dependent on the purpose for which they visit the space, which in turn is dictated by their needs. The spatial properties of the drive cater to specific ethnic needs and therefore promote certain types of interaction between its users, particularly those of minority ethnic background. This statement further supports the fact that the design of urban space and the appropriation of the surrounding built environment has not been planned in such a way that attracts and includes varied ethnic communities. The analysis of key functional, social and perceptual attributes of the drive contributes to identifying and understanding the spatial experience of the users which are essentially dictated by the design qualities and the provision of amenities. The study asserts that there is a lack of inclusive design methods incorporated into the urban space and that this has inhibited the efficient integration of varied ethnic communities within the

wider neighbourhood context. Moreover, examining cognitive characteristics that relate to how the area of Pollokshields is perceived by residents, through previous interviews, offers insight into the socio-spatial interactions of users. They suggest that most ethnic minority groups feel a sense of familiarity when the surrounding built environment is adapted to provide amenity that promotes their sense of belonging to the area. This seems to take priority over issues of security and accessibility.

Overall, the area of Pollokshields surrounding Albert Drive features space appropriation that is entirely directed to the South Asian community, thus promoting their clustering and congregation. It does not, however, provide the same level of amenity or cater to other ethnic groups. This further suggests that the arrangement and appropriation of urban space and the surrounding built environment does not promote integration of varied ethnic communities.

DISCUSSION OF KEY FINDINGS: THE IMPACT OF MIGRATION INTENSITIES ON THE SPATIAL ENVIRONMENT

“The need to make comparisons between places and times is something of a holy grail in segregation research” (Lloyd et. al, 2015:420). In examining the two cases within Gothenburg and Glasgow, the study has drawn on a wide range of approaches and data types. It has incorporated methods of measuring segregation and studying population patterns within the two contexts at different scales and has provided an understanding of the processes and dynamics of varied migration intensities and their effects. A clear link between socio-spatial segregation and urban form was established and methods and tools were presented.

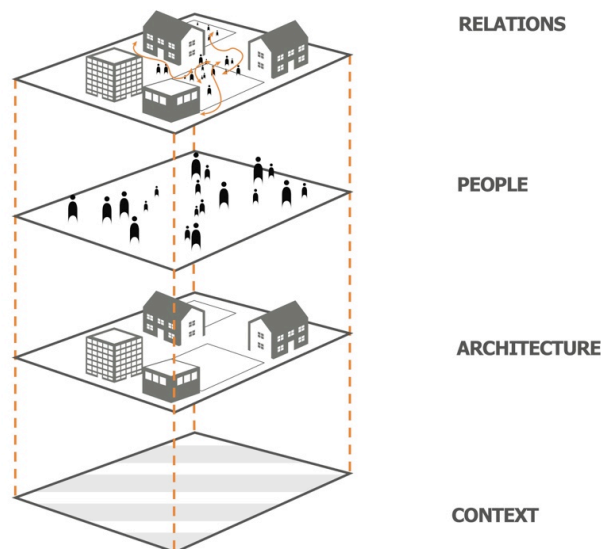


Figure 18. Social and spatial relationships (Source: Authors).

Results from the Gothenburg study maintain that segregation is heavily influenced by the arrangement of built form in a local neighbourhood. The layout within which residential and public spaces sit has been proven to be of particular relevance to socio-spatial segregation and in the case of Hammerkullen is found to clearly inhibit integration. This has heavily influenced the distribution of communities in the city. The segregation in social hierarchy of ethnic communities has evidently manifested itself in settlement patterns and consequently influenced a severe socio-spatial separation in urban space.

Results from the Glasgow study find that socio-spatial practices are also tied to users' distributions through space, i.e. how people use and perform activities in a space shaped by the built environment.

There has been a deeper focus on this study in order to highlight that there is a need to investigate physical spaces with a focus on user experience so as to validate the assumption that people will share practices if they are encouraged to share public space through the physical features of the built form. The study establishes that concentrated minority ethnic groups in the area of Pollokshields in Glasgow use urban space in different ways and it appears that their core area of settlement identifies with their ethnic needs. Glasgow continues to see ethnic clustering in its neighbourhood districts, however there is little growth in space adaptation and inclusion of other ethnic communities. The study enhances the understanding of the attributes that characterise the human dimension of public shared space: needs, rights and meaning (Menezes et. al, 2009). One identifies the spatial relationships between physical space, amenity and people by observing and experiencing an urban open space. This actively informs our understanding of the social and spatial structures that occur in space, ultimately influencing our sense of place within the larger society.

Findings from the two cases foster the notion that the built environment has reduced opportunity for successful integration of ethnic communities in urban space. It is concluded that the urban environment does not actively provide spatial amenity that hosts social processes for immigrant and non-immigrant communities alike. By looking at migrant and immigrant groups' socio-urban contributions in urban public space and studying their experiences of the urban environment in contrasting contexts and at different scales, it becomes evident that this is an aspect of the field of socio-spatial segregation that is severely under-represented and requires further exploration.

CONCLUSION

While this paper was intended to be as inclusive as possible, the parameters through which the study is organized only partially cover the issues of migration, urban segregation and urban form. It is therefore hoped that this work sufficiently highlights the need for indepth investigation into the aspatial nature of current discussion on urban segregation. The three conclusive parameters through which this study has been conducted: distributions of space, in space and through space, have been critical in drawing conclusions on the issue of urban segregation in the contexts of Gothenburg and Glasgow. It is evident that a shift in focus from the positional perspective to the relational perspective is important; from solely studying locations in space to also examining relations in space is required. The fundamental concept that informs the relationship between the 'spatial' and the 'social' of segregation is the way in which the built form creates relationships between people and buildings, between people and amenities, and ultimately between people and other people.

The interplay between co-presence, co-awareness and interaction in space is conceived to be significant in socio-spatial segregation research (Legeby, 2010). The fact that urban form plays a significant role in influencing successful integration suggests that there is a need for global investigation of urban design practice as it relates to issues of socio-spatial segregation. There is also a clear need for multi-scalar research on the topic of socio-spatial segregation with increased focus on spatial conditions and their consequences on human relationships. This influences the approach to future anti-segregation initiatives to include urban design practices on a larger scale as part of the strategies implemented within cities, and emphasizes the need for planning authorities to develop more responsive and inclusive design guidelines of neighbourhoods that cater to responsive practices of various ethnic communities. Notably, the contributions of immigrants and migrants in the shaping of new urban space and its landscape must be considered in future policies. The study of the two contexts delineates a deeper insight into the vital multi-scalar role that urban form plays in spatial co-presence and by extension, socio-spatial segregation.

It is apparent that there is minimal incorporation of the study of migrant and immigrant groups' socio-urban contributions in urban public space towards forming design principles that aid in building shared urban intercultural social networks. In this respect, segregation of migrant communities is a spatial as well as a social problem and the characteristics that describe space have a direct relationship with social structures in cities, neighbourhoods and urban spaces. There are considerably low levels of co-

presence in urban areas where migrant communities exist, partially due to accessibility potential as a direct result of the inefficient distributions of space, in space and through space. This ultimately means that the potential for physical and social integration is significantly diminished. This continues to warrant the need for inclusive processes of urban design application, which can only be done with more systematic observation and analysis of the urban dynamics and the spatial practices of different ethnic communities, while contributing to the social model within urban and residential segregation debates.

CONCLUSION

- Al-Maimani, A., Salama, A. M., and Fadli, F. (2014). Exploring socio-spatial aspects of traditional souqs: The case of Souq Mutrah, Oman. *Archnet-IJAR: International Journal of Architectural Research*, 8(1), 50-65. <http://dx.doi.org/10.26687/archnet-ijar.v8i1.356>
- Andersson R., Turner L., Holmqvist E. (2010) Contextualising ethnic residential segregation in Sweden: welfare, housing and migration related policies. Institute for housing and urban research. Uppsala University.
- Chen, Y., Liu, T., Xie, X., & Marušić, B. G. (2016). What Attracts People to Visit Community Open Spaces? A Case Study of the Overseas Chinese Town Community in Shenzhen, China. *International Journal of Environmental Research and Public Health*, 13(7), 644.
- Dustmann, C. and Frattini, T. (2012). Immigration: The European Experience. *SSRN Electronic Journal*.
- Edward, M. (1993). *Who belongs to Glasgow?* 1st ed. Glasgow: Glasgow City Libraries.
- EUGUGLE (2013) Towards a sustainable Hammarkullen. Göteborgs Stad. Available at : <http://eu-gugle.eu/wp-content/uploads/2013/10/towards-a-sustainable-hammarkullen.pdf>
- French, K. (2008). *Patterns and Consequences of Segregation: An Analysis of Ethnic Residential Patterns at Two Geographic Scales*. University of Nebraska.
- Hall, T. and Viden, S. (2006). The Million Homes Programme: a review of the great Swedish planning project. *Planning Perspectives*, 20(3), pp.301-328.
- Hopkins, P. (2002). *Everyday Racism in Scotland: A Case Study of East Pollokshields*. Scottish Affairs.
- Iceland, J. (2014). *Residential Segregation. A Transatlantic Analysis*. Migration Policy Institute.
- Igerud, M. (2011). *Ethnic congregation as a segregation factor in Göteborg, Sweden*. Göteborg University.
- Irene M., Andersson R. (2003) Racialization and Migration in Urban Segregation Processes. Farnham: Ashgate.
- Johnston, R. J., Gregory, D. and Smith, D. (1981) *The Dictionary of Human Geography*. Oxford: Basil Blackwell.
- Kain, J. (1968). Housing Segregation, Negro Employment, and Metropolitan Decentralization. *The Quarterly Journal of Economics*, 82(2), p.175.
- Kearsley, G. and Srivastava, S. (1974). The spatial evolution of Glasgow's Asian community. *Scottish Geographical Magazine*, 90(2), 110-124.
- Lauener P. (2015) Sweden 'integration problems' expected to fuel segregation expansion. RT. Available at <https://www.rt.com/news/239257-segregation-growing-sweden-integration/>
- Legeby, A. (2010). *Urban Segregation and Urban Form. From residential segregation to segregation in public space*. KTH University.
- Lefebvre, H. (1991). *The Production of Space*. (Translated by D. Nicholson-Smith). Wiley-Blackwell.
- Lloyd, C., Shuttleworth, I. and Wong, D. (2015). *Social-spatial segregation*. 1st ed. Bristol: Policy Press.

- McGarrigle, J. (2010). *Understanding processes of ethnic concentration and dispersal. South Asian Residential Preferences in Glasgow*. Amsterdam: Amsterdam University Press.
- Menezes, M., Allen, J. and Vasconcelos, L. (2009). *Immigrants in the public space: Understanding urban cultural landscapes*.
- Pacione, M. (2005). *Residential differentiation in nineteenth century Glasgow: A morphogenetic study of Pollokshields*.
- Peach, C. (1996). Good segregation, bad segregation. *Planning Perspectives* 11, 379–398.
- Penninx, R., Spencer, D. and Van Hear, N. (2008). *Migration and Integration in Europe: The State of Research*. ESRC Centre on Migration, Policy and Society (COMPAS) University of Oxford.
- Putri, A. (2012). *Emerging Hammarkullen: Strategy for livelier million program neighborhood*.
- Ramaswamy, C. (2013). *Scotland's most ethnically diverse street*. The Scotsman. [online] Available at: <http://www.scotsman.com/news/scotland-s-most-ethnically-diverse-street-1-2991437>
- Salama, A. M. and Wiedmann, F. (2013). The Production of Urban Qualities in the Emerging City of Doha: Urban Space Diversity as a Case for Investigating the 'Lived Space.' *Archnet-IJAR: International Journal of Architectural Research*, 7(2), 160-172.
- Salama, A. M. and Azzali, S. (2015). Examining attributes of urban open spaces in Doha. *Proceedings of the Institution of Civil Engineers - Urban Design and Planning*, 168(2), 75-87.
<http://dx.doi.org/10.1680/udap.14.00011>
- Salama, A. M., Khalfani, F. and Al-Maimani, A. (2013). Experiential assessment of urban open spaces in Doha. *Open House International*, 38(4), 47-57.
- Salama, A. M., Azzali, S. and Wiedmann, F. (2017). The everyday urban environment of migrant labourers in Gulf cities: The case of the old centre of Doha, Qatar. *City, Territory and Architecture*, 4(article 5) 1-15. DOI: 10.1186/s40410-017-0061-5
- UK Census (2011). *Immigration Patterns of Non-UK Born Populations in the UK*. Office for National Statistics.
- Vargas-Silva, C. (2013). *Migrants in Scotland: An Overview*. Migration Observatory briefing, COMPAS, University of Oxford, UK.
- World Statistics Pocketbook (2016). New York: United Nations.
- Youssef, W. (2013). *Lost / Displaced Architecture*. [online] Available at: <https://archive.org/details/DisplacedArchitecture>

